

09/806,180

KPT 1090
PATENT

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace the prior version of claims in the application:

1. (Previously presented) A process for the recovery of purified ethyl acetate from a feedstock comprising ethyl acetate, ethanol and water which comprises:

(a) providing a first distillation zone maintained under distillation conditions which include use of a first distillation pressure, which are effective for distillation from a mixture comprising ethyl acetate, ethanol and water of a first distillate comprising ethyl acetate, ethanol, and not more than 10 mol % water, and which yield an ethanol rich bottom product comprising ethanol and water;

(b) providing a second distillation zone maintained under distillation conditions which include use of a second distillation pressure higher than the first distillation pressure, which are effective for distillation from a mixture comprising ethyl acetate, ethanol and water of a second distillate comprising ethanol, water, and a minor proportion of ethyl acetate, and which yield a purified ethyl acetate bottom product;

(c) supplying to a zone selected from the first distillation zone and the second distillation zone a feedstock comprising ethyl acetate, ethanol and water;

(d) recovering a first distillate comprising ethyl acetate, ethanol, and not more than about 10 mol % water from the first distillation zone;

(e) supplying material of the first distillate to the second distillation zone;

(f) recovering an ethanol rich bottom product comprising ethanol and water from the first distillation zone;

(g) recovering a purified ethyl acetate bottom product from the second distillation zone;

(h) recovering a second distillate comprising ethanol, water, and a minor proportion of ethyl acetate from the second distillation zone; and

(i) recycling material of the second distillate of step (h) to the first distillation zone.

2. (Currently amended) A process according to claim 1, in which in step (~~[[d]]~~c) the feedstock has a water content of less than about 20 mol % and is supplied to the first distillation zone.

3. (Previously presented) A process according to claim 1, in which the first distillation zone is operated at a pressure of less than about 4 bar (4×10^5 Pa).

4. (Previously presented) A process according to claim 1, in which the first distillation zone is operated at a pressure of from about 1 bar (10^5 Pa) to about 2 bar (2×10^5 Pa).

5. (Previously presented) A process according to claim 1, in which the second distillation zone is operated at a pressure of from about 4 bar (4×10^5 Pa) to about 25 bar (2.5×10^6 Pa).

6. (Previously presented) A process according to claim 1, in which the second distillation zone which is operated at a pressure of from about 9 bar (9×10^5 bar) absolute to about 15 bar (1.5×10^6 Pa) absolute.

7. (Previously presented) A process according to claim 1, in which the first distillate has a water content of from about 1 mol % to about 6 mol %.

8. (Previously presented) A process according to claim 1, in which the feedstock supplied to the first distillation zone further contains "light" components, in which an ethanol rich stream is recovered from a bottom part of the first distillation zone, in which an overhead stream that contains "light" components present in the mixture supplied to the first distillation zone is recovered from the first distillation zone, and in which the first distillate is recovered as a liquid draw stream from an upper region of the first distillation zone.

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9
10. (Previously presented) A process according to claim 1, in which the first distillate contains about 1 mol % to about 6 mol % water, from about 40 mol % to about 55 mol % ethyl acetate, not more than about 1 mol % other products, and the balance ethanol.

10
11. (Previously presented) A process according to claim 1, in which the first distillate contains about 45 mol % ethyl acetate, about 50 mol % ethanol, about 4 mol % water and about 1 mol % other components.

11. (Previously presented) A process according to claim 1, in which the second distillate is recovered as an overhead stream from the second distillation zone, in which a bottom product comprising ethyl acetate is recovered from the second distillation zone, and in which the second distillate is returned to the first distillation zone at a point above the feed point of the feedstock to the first distillation zone.

12. (Previously presented) A process according to claim 1, in which the bottom product from the second distillation zone contains from about 99.8 mol % to about 99.95 mol % ethyl acetate.

13. (Previously presented) A process according to claim 1, in which the second distillate contains about 25 mol % ethyl acetate, about 68 mol % ethanol, about 6 mol % water, and about 1 mol % other components.